



# SEQUENCE LISTING

<110> MOTODA, Yoko et al

<120> METHOD OF PRODUCING TEMPLATE DNA AND METHOD OF PRODUCING PROTEIN IN CELL-FREE PROTEIN SYNTHESIS SYSTEM USING THE SAME

<130> 1686-0108P

<140> 2003-12-31

<141> US 10/748,055

<150> PCT/JP02/06261

<151> 2002-06-24

<150> JP P2001-201356

<151> 2001-07-02

<160> 25

<170> PatentIn version 3.1

<210> 1

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> native His tag

<400> 1

Met Lys Asp His Leu Ile His Asn Val His Lys Glu Glu His Ala His  
1 5 10 15

Ala His Asn Lys  
20

<210> 2

<211> 605

<212> DNA

<213> Artificial Sequence

<220>

<223> double stranded linear DNA coding for Ras protein

<400> 2

ggcgtataca tatgaccgaa tacaaactgg ttgtagttgg cgctgggtggt gtaggcaaaa 60

gcgcgctgac cattcagttg atccagaacc acttcgtaga tgagtacgac ccgactattg 120

aagactctta ccgtaagcag gttgttatcg acggtgagac ctgtttgctg gacatccttg 180

ataccgcagg ccaagaagaa tactctgcta tgcgtgatca gtatatgcgt accggcgaag 240

gcttcctgtg cgttttcgct atcaacaaca ccaaattcttt tgaagacatc catcaatacc 300  
 gtgaacagat caaacgtggt aaagactctg atgacgttcc gatgggttctg gttggtaaca 360  
 aatgcgactt ggcagcgcgt actgttgaat ctcgtcaggc tcaggatctg gtcggttctt 420  
 acggaattcc gtacatcgaa acctctgcta aaactcgtca aggcgttgaa gacgctttct 480  
 acaccttggt tcgtgaaatc cgtcagcaca agctgcgtaa gctttgatag aattccgtga 540  
 tagctcgagt cgaccggctg ctaacaaagc ccgaaagggt ttctgtgtg aaattgttat 600  
 ccgct 605

<210> 3  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> 5' primer-1 universal

<400> 3  
 ccgaaggagc cgccaccat 19

<210> 4  
 <211> 40  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> 5' primer-2 for Ras

<400> 4  
 gaaggagccg ccaccatgac cgaatacaaa ctggttgtag 40

<210> 5  
 <211> 26  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> 3' primer universal

<400> 5  
 gcggataaca atttcacaca ggaaac 26

<210> 6  
 <211> 844  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> 5' DNA fragment comprising GST tag sequence

<400> 6

```
ccgctgtcct cgttcccagc ccatgattac gaattcagat ctcgatcccg cgaaattaat    60
acgactcact atagggagac cacaacgggt tccctctaga aataattttg tttaacttta    120
agaaggagat atacatatgt cccctatact aggttatttg aaaattaagg gccttgtgca    180
accactcga cttcttttgg aatatcttga agaaaaatat gaagagcatt tgtatgagcg    240
cgatgaaggt gataaatggc gaaacaaaaa gtttgaattg ggtttggagt ttcccaatct    300
tccttattat attgatgggt atgttaaatt aacacagtct atggccatca tacgttatat    360
agctgacaag cacaacatgt tgggtgggtt tccaaaagag cgtgcagaga tttcaatgct    420
tgaaggagcg gttttggata ttagatacgg tgtttcgaga attgcatata gtaaagactt    480
tgaaactctc aaagttgatt ttcttagcaa gctacctgaa atgctgaaaa tgttcgaaga    540
tcgtttatgt cataaaacat atttaaattg tgatcatgta acccatcctg acttcatggt    600
gtatgacgct cttgatgttg ttttatacat ggacccaatg tgctggatg cgttcccaaa    660
attagtttgt tttaaaaaac gtattgaagc tatcccacaa attgataagt acttgaaatc    720
cagcaagtat atagcatggc ctttgcaggg ctggcaagcc acgtttggtg gtggcgacca    780
tcctccaaaa tcggatagct ctggcgccct cctggtgccg cgcggatccg aaggagccgc    840
cacc                                                                    844
```

<210> 7

<211> 217

<212> DNA

<213> Artificial Sequence

<220>

<223> 5' DNA fragment comprising His tag sequence

<400> 7

```
ccgctgtcct cgttcccagc ccatgattac gaattcagat ctcgatcccg cgaaattaat    60
acgactcact atagggagac cacaacgggt tccctctaga aataattttg tttaacttta    120
agaaggagat atacatatga aaggcagcag ccatcatcat catcatcaca gcagcggcgc    180
ctccctgggt ccacgcggat ccgaaggagc cgccacc                                217
```

<210> 8

<211> 244

<212> DNA

<213> Artificial Sequence

<220>

<223> 5' DNA fragment comprising native His tag sequence

<400> 8

```
ccgctgtcct cgttcccagc ccatgattac gaattcagat ctcgatcccg cgaaattaat    60
acgactcact atagggagac cacaacgggt tccctctaga aataattttg tttaacttta    120
agaaggagat atacatatga aagatcatct catccacaat gtccacaaag aggagcacgc    180
tcatgcccac aacaagagct ctggcgcttc cctggtgcca cgcgatccg aaggagccgc    240
cacc                                                                    244
```

<210> 9

<211> 652

<212> DNA

<213> Artificial Sequence

<220>

<223> 5' DNA fragment comprising CBD

<400> 9

```
ccgctgtcct cgttcccagc ccatgattac gaattcagat ctcgatcccg cgaaattaat    60
acgactcact atagggagac cacaacgggt tccctctaga aataattttg tttaacttta    120
agaaggagat atacatatgt cagttgaatt ttacaactct aacaaatcag cacaacaaa    180
ctcaattaca ccaataatca aaattactaa cacatctgac agtgatttaa atttaaataa    240
cgtaaaagtt agatattatt acacaagtga tggtagacaa ggacaaactt tctgggtgtga    300
ccatgctggt gcattattag gaaatagcta tgttgataac actagcaaag tgacagcaaa    360
cttcgttaaa gaaacagcaa gcccaacatc aacctatgat acatatgttg aatttggatt    420
tgcaagcgga gcagctactc ttaaaaaagg acaatttata actattcaag gaagaataac    480
aaaatcagac tgggtcaaact acactcaaac aaatgactat tcatttgatg caagtagttc    540
aacaccagtt gttaaataaa aagttacagg atatataagg ggagctaaag ttcttggtag    600
agcaagctct ggcgcctccc tggtagccac cggatccgaa ggagccgcca cc          652
```

<210> 10

<211> 511

<212> DNA

<213> Artificial Sequence

<220>

<223> 5' DNA fragment comprising Thioredoxin sequence

<400> 10

```
ccgctgtcct cgttcccagc ccatgattac gaattcagat ctcgatcccg cgaaattaat    60
```

acgactcact atagggagac cacaacgggt tccctctaga aataattttg tttaacttta	120
agaaggagat atacatatga gcgataaaat tattcacctg actgacgaca gttttgacac	180
ggatgtactc aaagcggacg gggcgatcct cgtcgatttc tgggcagagt ggtgcggtcc	240
gtgcaaaatg atcgccccga ttctggatga aatcgctgac gaatatcagg gcaaactgac	300
cgttgcaaaa ctgaacatcg atcaaaaccc tggcactgcg ccgaaatatg gcatccgtgg	360
tatcccgact ctgctgctgt tcaaaaacgg tgaagtggcg gcaaccaaag tgggtgcact	420
gtctaaaggt cagttgaaag agttcctcga cgctaacctg gccagctctg gcgcctccct	480
ggtgccacgc ggatccgaag gagccgccac c	511

<210> 11  
 <211> 183  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> 3' DNA fragment comprising T7 terminator

<400> 11	
gtttcctgtg tgaaattgtt atccgctgct gagttggctg ctgccaccgc tgagcaataa	60
ctagcataac cccttggggc ctctaaacgg gtcttgaggg gttttttgct gaaaggagga	120
actatatccg gataacctcg agctgcaggc atgcaagctt ggggctggga acgaggacag	180
cgg	183

<210> 12  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> universal primer for 2nd PCR

<400> 12	
gccgctgtcc tcgttcccag cc	22

<210> 13  
 <211> 760  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> double stranded linear DNA coding for CAT protein

<400> 13

ggcgtataca tatggagaaa aaaatcactg gatataccac cgttgatata tcccaatggc	60
atcgtaaaga acattttgag gcattttcagt cagttgctca atgtacctat aaccagaccg	120
ttcagctgga tattacggcc tttttaaaga ccgtaaagaa aaataagcac aagttttatc	180
cggcctttat tcacattctt gcccgcctga tgaatgctca tccggaattc cgtatggcaa	240
tgaaagacgg tgagctggtg atatgggata gtgttcaccc ttgttacacc gttttccatg	300
agcaaactga aacgttttca tcgctctgga gtgaatacca cgacgatttc cggcagtttc	360
tacacatata ttcgcaagat gtggcgtggt acggtgaaaa cctggcctat ttccctaaag	420
ggttttattga gaatatgttt ttcgtctcag ccaatccctg ggtgagtttc accagttttg	480
atttaaactg ggccaatatg gacaacttct tcgccccctg tttcaccatg ggcaaatatt	540
atacgcaagg cgacaagggt ctgatgccgc tggcgattca ggttcacat gccgtctgtg	600
atggcttcca tgtcggcaga atgcttaatg aattacaaca gtactgcgat gagtggcagg	660
gcggggcgta atttttttaa ggcagttatt ggtgccctta aacgtcgacc ggctgctaac	720
aaagcccgaagggtttcct gtgtgaaatt gttatccgct	760

<210> 14  
 <211> 41  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> 5' primer-2 for CAT

<400> 14	
gaaggagccg ccaccatgga gaaaaaatc actggatata c	41

<210> 15  
 <211> 36  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> 5' primer-2 for 1A2

<400> 15	
gaaggagccg ccaccatgct caaagtcacg gtgccc	36

<210> 16  
 <211> 35  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> 5' primer-2 for 1B2

<400> 16

gaaggagccg ccaccatgga ggagcagcgc tgttc

35

<210> 17

<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<223> 5' primer-2 for 1C8

<400> 17

gaaggagccg ccaccatggc ccgaaccaag cagac

35

<210> 18

<211> 38

<212> DNA

<213> Artificial Sequence

<220>

<223> 5' primer-2 for 1D2

<400> 18

gaaggagccg ccaccatggg tgttgacaaa atcattcc

38

<210> 19

<211> 37

<212> DNA

<213> Artificial Sequence

<220>

<223> 5' primer-2 for 1D9

<400> 19

gaaggagccg ccaccatggt ggagacctac agcaacc

37

<210> 20

<211> 34

<212> DNA

<213> Artificial Sequence

<220>

<223> 5' primer-2 for 1D10

<400> 20

gaaggagccg ccaccatggc ggtgcaggtg gtgc

34

<210> 21

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> 5' primer-2 for 1E4

<400> 21

gaaggagccg ccaccatgga tgatcgggag gatctg

36

<210> 22

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> 5' primer-2 for 1G4

<400> 22

gaaggagccg ccaccatgtc gagttattct agtgac

36

<210> 23

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> 5' primer-2 for 1H1

<400> 23

gaaggagccg ccaccatggt gaaggtcggt gtgaac

36

<210> 24

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> 5' primer-2 for 1H5

<400> 24

gaaggagccg ccaccatggc caacagtgag cg

32

<210> 25

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> His tag

<400> 25

Met Lys Gly Ser Ser His His His His His His

1

5

10